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EXAMINER	
REESE, DAVID C	

ART UNIT	PAPER NUMBER
3677	

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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/598,801	MATSUMURA ET AL.	
	Examiner	Art Unit	
	DAVID C. REESE	3677	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *14 May 2009*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-18* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-18* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

THIS FINAL ACTION IS RESPONSIVE TO THE AMENDMENT FILED 5/14/2009.

- Claims 15-18 were added.
- Claims 1, 6, and 10 were amended.
- Claims 1-18 are pending.

Claim Objections

[1] Claim(s) were previously objected to because of informalities. Applicant has successfully addressed these issues in the amendment filed on 5/14/2009. Accordingly, the objection(s) to the claim(s) have been withdrawn.

Claim Rejections - 35 USC § 103

[2] The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

[3] Claims 1-5, 7-9 and 11-16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Itzkowitz (US 5,713,219 A) in view of Kedem et al. (US 2005/0115275 A1).

Itzkowitz discloses an oval-cut diamond (10c,10d) comprising a columnar girdle (24c,24d), a crown provided above the girdle and having an octagonal table facet (12c, 12d) on a top of the crown and a pavilion provided below the girdle (Figs. 2c,2d,3c,3d, 4c and 4d). The girdle has an upper ridge between the crown and the girdle, a lower ridge between the pavilion and the girdle and a contour line of a girdle cross-section, parallel to the table facet, being in an

oval or oval-like shape (Figs. 2c,2d,3c,3d,4c and 4d). The diamond has a central plane, a straight central axis and eight-dividing planes (Figs. 2c,2d,3c,3d,4c and 4d). The central plane contains a long axis (running along the long side of the diamond) of the contour line and being a plane vertical to the table facet (Figs. 2c,2d,3c, 3d,4c and 4d). The straight central axis crosses vertically the table facet on the central plane (Figs. 2c,2d,3c,3d,4c and 4d). The eight-dividing planes are composed of the central plane, a plane containing a short axis of the contour line of the girdle cross-section and the central axis and planes dividing an angle around the central axis between the plane containing the short axis and the central axis and the central plane equally into two (Figs. 2c,2d,3c,3d,4c and 4d). The table facet has two opposite vertexes on the central plane and six vertexes symmetrical with respect to the central plane (Figs. 2c, 2d,3c,3d,4c and 4d). The crown has eight tetragonal crown main facets (18c that is between star face and upper girdle facet), eight triangular star facets (having one side shared with the table) and sixteen upper girdle facets (18c that has one side shared with the girdle) on a diamond circumference between the girdle upper ridge and the table facet. Each of the crown main facets is a tetragon having two opposite vertexes composed of a point, at which each of the eight-dividing planes crosses the girdle upper ridge and each vertex of the table facet, and other vertexes each owned jointly with each of two other crown main facets neighboring on the crown main facet (Figs. 2c,2d, 4c and 4d). Each of the star facets is a triangle having a bottom side coinciding with each side of the table facet and an opposite vertex coinciding with each of the other vertexes jointly owned by two neighboring crown main facets each having a vertex at each end of the bottom side (Figs. 2c,2d,4c and 4d). Each of the upper girdle facets is a triangle or an oval sector having a bottom side coinciding with a side, whose end is on the girdle upper ridge, among sides of the crown

main facets and a vertex on the girdle upper ridge (Figs. 2c,2d,4c and 4d). The pavilion has a bottom apex (22c,22d) at a lower end of the central axis and eight pavilion main facets (extending from 22c or 22d) and sixteen lower girdle facets (16c,16d) on the diamond circumference between the bottom apex and the girdle lower ridge (Figs. 3c,3d,4c and 4d). Each of the pavilion main facets is a tetragon or a part of a tetragon extending from the bottom apex toward a crossing point of each of the eight-dividing planes with the girdle lower ridge on the diamond circumference between the bottom apex and the girdle lower ridge, and having a side, whose end coincides with the bottom apex, jointly owned with each of two other pavilion main facets neighboring on the pavilion main facet (Figs. 3c,3d,4c and 4d). Each of at least seven pavilion main facets among the pavilion main facets is formed with opposite vertexes composed of a crossing point of each of the eight-dividing planes with the girdle and the bottom apex (Figs. 2c,2d,3c,3d,4c and 4d). Each of the lower girdle facets formed between the pavilion main facets and the girdle lower ridge is a triangle or an oval sector having a bottom side coinciding with a side having an end on the girdle lower ridge among sides of each of the pavilion main facets and a vertex on the girdle lower ridge (Figs. 3c,3d, 4c and 4d). Each of the lower girdle facets is disposed on each of both sides of each of the pavilion main facets (Figs. 2c,2d,3c,3d, 4c and 4d). The oval or oval-like shape formed by the contour line of the girdle cross-section has a ratio of a short radius to a long radius, b/a, of 0.6 or more, in which a radius in a long axis direction of the shape is denoted as "a", and a radius in a short axis direction of the shape is denoted as "b" (Figs. 2c,2d,3c and 3d). Each pair of four pairs of pavilion main facets, of which each pair is composed of two pavilion main facets positioned opposite to each other with respect to the central axis, has two crown main facets facing the two pavilion main facets through the girdle, and the two

pavilion main facets, the two crown main facets and the table facet have a common plane vertical to all of them within them (Figs. 2c,2d,3c,3d,4c and 4d).

Itzkowitz fails to discloses that a circumscribed circle having a center on the central axis and circumscribing the contour line at an end of the long axis and that each of at least seven pavilion main facets among the pavilion main facets is formed with opposite vertexes composed of a crossing point of each of the eight-dividing planes with the circumscribed circle and the bottom apex. However, Kedem et al. teaches a diamond comprising a columnar girdle (52), a crown (50) provided above the girdle and having an octagonal table facet (55) on a top of the crown and a pavilion (70) provided below the girdle (Figs. 7-18). The girdle has an upper ridge between the crown and the girdle, a lower ridge between the pavilion and the girdle and a contour line of a girdle cross-section, parallel to the table facet, being in a square or square-like shape (Figs. 11 and 12). The diamond has a central plane, a straight central axis (running through 69), a circumscribed circle (103) and eight-dividing planes (105,106,107,108) (Figs. 7-18). The central plane contains an axis (running between opposite sides of the diamond) of the contour line and being a plane vertical to the table facet (Figs. 7-18). The straight central axis crosses vertically the table facet on the central plane (Figs. 7-18). The circumscribed circle (103) has a center (at culet) on the central axis and circumscribing the contour line at an end of an axis (Figs. 8-10). The circumscribed circle provides enhanced brilliance and fire, as well as appearance of a table reflection (Paragraph 0068). The eight-dividing planes are composed of the central plane, a plane containing another axis of the contour line of the girdle cross-section and the central axis and planes dividing an angle around the central axis between the plane containing the another axis and the central axis and the central plane equally into two (Figs. 7-

18). The table facet has two opposite vertexes on the central plane and six vertexes symmetrical with respect to the central plane (Figs. 7-18). The crown has eight tetragonal crown main facets (58), eight triangular star facets (21) and sixteen upper girdle facets (60,61,62,63,64,65,66,67) on a diamond circumference between the girdle upper ridge and the table facet. Each of the crown main facets is a tetragon having two opposite vertexes composed of a point, at which each of the eight-dividing planes crosses the girdle upper ridge and each vertex of the table facet, and other vertexes each owned jointly with each of two other crown main facets neighboring on the crown main facet (Figs. 7 and 10). Each of the star facets is a triangle having a bottom side coinciding with each side of the table facet and an opposite vertex coinciding with each of the other vertexes jointly owned by two neighboring crown main facets each having a vertex at each end of the bottom side (Figs. 7 and 10). Each of the upper girdle facets is a triangle or an oval sector having a bottom side coinciding with a side, whose end is on the girdle upper ridge, among sides of the crown main facets and a vertex on the girdle upper ridge (Figs. 7 and 10). The pavilion has a bottom apex (69) at a lower end of the central axis and eight pavilion main facets (90,91,92,93,94,95,96,97) and sixteen lower girdle facets (76,77,78,79,80,81,82,83) on the diamond perimeter between the bottom apex and the girdle lower ridge (Figs. 8-10). Each of the pavilion main facets is a tetragon or a part of a tetragon extending from the bottom apex toward a crossing point of each of the eight-dividing planes with the girdle lower ridge on the diamond perimeter between the bottom apex and the girdle lower ridge, and having a side, whose end coincides with the bottom apex, jointly owned with each of two other pavilion main facets neighboring on the pavilion main facet (Figs. 8-10). Each of at least seven pavilion main facets among the pavilion main facets is formed with opposite vertexes composed of a crossing point of

each of the eight-dividing planes with the circumscribed circle and the bottom apex (Figs. 9 and 10). Each of the lower girdle facets formed between the pavilion main facets and the girdle lower ridge is a triangle or an oval sector having a bottom side coinciding with a side having an end on the girdle lower ridge among sides of each of the pavilion main facets and a vertex on the girdle lower ridge (Figs. 8-10). Each of the lower girdle facets is disposed on each of both sides of each of the pavilion main facets (Figs. 8-10). Each pair of four pairs of pavilion main facets, of which each pair is composed of two pavilion main facets positioned opposite to each other with respect to the central axis, has two crown main facets facing the two pavilion main facets through the girdle, and the two pavilion main facets, the two crown main facets and the table facet have a common plane vertical to all of them within them (Figs. 10-12). Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to have the circumscribed circle having a center on the central axis and circumscribing the contour line at an end of an axis and that each of at least seven pavilion main facets among the pavilion main facets is formed with opposite vertexes composed of a crossing point of each of the eight-dividing planes with the circumscribed circle and the bottom apex as taught by Kedem et al. in the diamond of Itzkowitz. Doing so, enhances the appearance of the diamond since the circumscribed circle provides enhanced brilliance and fire, as well as appearance of a table reflection.

From the combination of Itzkowitz and Kedem et al., Itzkowitz discloses that the central axis is disposed in a center of the long axis of the contour line of the girdle cross-section and the circumscribed circle in accordance with the teachings of Kedem et al. will circumscribe the

contour line at both ends of the long axis just like it circumscribes the contour line at the corners of the diamond of Kedem et al.

Each of the pavilion main facets has opposite vertexes composed of a crossing point of each of the eight-dividing planes with the circumscribed circle and the bottom apex as taught by Kedem et al. in Figure 10.

Itzkowitz discloses that each of the pavilion main facets has a substantially equal pavilion angle to the table facet (Figs. 2c,2d,3c,3d,4c and 4d).

A crown main facet as discloses by Itzkowitz that each of the pavilion main facets has the substantially equal pavilion angle faces through the girdle has a substantially equal crown angle to the table facet (Figs. 2c,2d,3c,3d,4c and 4d).

The girdle has a substantially equal girdle height around a whole circumference of the girdle (Figs. 2c,2d,3c,3d,4c and 4d). Six pavilion main facets excluding two pavilion main facets extending in a long axis direction from the bottom apex and lower girdle facets are disposed between two neighboring pavilion main facets among the six pavilion main facets have adjusting facets between a respective facet and the girdle lower ridge having a larger angle to the table facet than the pavilion angle and forming a ridge between the respective facet and each of the adjusting facets (Figs. 2c,2d,3c,3d, 4c and 4d).

From the combination of Itzkowitz and Kedem et al., Itzkowitz discloses at least seven pavilion main facets have opposite vertexes composed of a crossing point of each of the eight-dividing planes with the girdle and the bottom apex have a substantially equal pavilion angle to the table facet (Figs. 2c,2d,3c,3d,4c and 4d) and when combined with the circumscribed circle that is taught by Kedem et al. the opposite vertexes composed of a crossing point of each of the

eight-dividing planes with the circumscribed circle and the bottom apex will have a substantially equal pavilion angle to the table facet. Especially since Kedem et al. also teaches that the pavilion angles to the table facet for the pavilion main facets also have a substantially equal pavilion angle to the table facet as seen in Figures 11 and 12.

The contour line of the girdle cross-section parallel to the table is oval (Figs. 2c, 2d,3c,3d,4c and 4d).

Itzkowitz and Kedem et al. fails to disclose that the contour line of the girdle cross-section parallel to the table is in a shape of two oval sectors crossing each other or that the contour line of the girdle cross-section parallel to the table is in a shape of three oval sectors crossing each other.

With respect to this limitation as well as any other limitation found in the instant set of claims that is held to not be shown expressly or explicitly disclosed or taught by either Itzkowitz, Kedem et al. or the combination thereof, the examiner would like to reiterate that it would have been obvious to one having ordinary skill in the art at the time of Applicant's invention to have the contour line of the girdle cross-section parallel to the table is in a shape of two oval sectors crossing each other or that the contour line of the girdle cross-section parallel to the table is in a shape of three oval sectors crossing each other by providing a diamond in the shape of a marquise cut or a pear cut; as well as any other alteration to the gemstone as provided below since it is extremely old, well known, readily apparent and profoundly obvious to change the size, shape, orientation, angles, percentages, planes, and create ranges for facets and the gemstone in its entirely as to merely alter the aesthetics of said gemstone for the corresponding and resulting properties including brilliance, radiance, etc. for the utility of mere user preference.

It is also extremely well known that altering said features will produce different properties radiating from said gemstone, depending on the changes and alterations made. Therein, once again, lies the pertinence behind such, as no unexpected result, viewed by one skilled in the art; will occur, with any of the above possible changes or alterations to any given gemstone.

[5] Claims 6, 10, and 18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Itzkowitz in view of Kedem et al. as applied to claims 4 and 9 above, and further in view of Kawabuchi et al. (US 2003/0154741).

Itzkowitz and Kedem et al. fail to discloses that a pavilion angle to the table facet each of the pavilion main facets has and a crown angle to the table facet each of the crown main facets has are in a region surrounded by lines connecting points (p, c): (43 degrees, 10 degrees), (41 degrees, 14 degrees), (37 degrees, 23 degrees), (35 degrees, 33 degrees), (35 degrees, 36 degrees), (37 degrees, 42 degrees), (39 degrees, 42 degrees), (41 degrees, 36 degrees), (43 degrees, 24 degrees) and (44.7 degrees, 9 degrees) on a graph drawn with pavilion angles (p) in a vertical line and crown angles (c) in a horizontal line since Itzkowitz and Kedem et al. fail to disclose the values for the crown angles and the pavilion angles or that the values can be view on a graph. However, Kawabuchi et al. teaches that a cut design of diamonds (1) providing plenty of visual-perceptible reflection. The diamond comprises a columnar girdle (12), a crown (11,14,15,16) provided above the girdle and having an octagonal table facet (11) on a top of the crown and a pavilion (13,17,18) provided below the girdle (Figs. 1A-1C). The girdle has an upper ridge between the crown and the girdle, a lower ridge between the pavilion and the girdle and a contour line of a girdle cross-section, parallel to the table facet, being in a circle or circular-like shape (Figs. 1A-1C). The diamond has a central plane, a straight central axis (Z)

and eight-dividing planes (21) (Figs. 1A-1C). The central plane contains an axis of the contour line and being a plane vertical to the table facet (Figs. 1A-1C). The straight central axis crosses vertically the table facet on the central plane (Fig. 1B). Each of at least seven pavilion main facets among the pavilion main facets is formed with opposite vertexes composed of a crossing point of each of the eight-dividing planes with the girdle and the bottom apex (Figs. 9 and 10). The eight-dividing planes are composed of the central plane, a plane containing another axis of the contour line of the girdle cross-section and the central axis and planes dividing an angle around the central axis between the plane containing the another axis and the central axis and the central plane equally into two (Figs. 1A-1C). The table facet has two opposite vertexes on the central plane and six vertexes symmetrical with respect to the central plane (Figs. 1A-1C). The crown has eight tetragonal crown main facets (14), eight triangular star facets (15) and sixteen upper girdle facets (16) on a diamond circumference between the girdle upper ridge and the table facet. Each of the crown main facets is a tetragon having two opposite vertexes composed of a point, at which each of the eight-dividing planes crosses the girdle upper ridge and each vertex of the table facet, and other vertexes each owned jointly with each of two other crown main facets neighboring on the crown main facet (Fig. 1A). Each of the star facets is a triangle having a bottom side coinciding with each side of the table facet and an opposite vertex coinciding with each of the other vertexes jointly owned by two neighboring crown main facets each having a vertex at each end of the bottom side (Fig. 1A). Each of the upper girdle facets is a triangle or an oval sector having a bottom side coinciding with a side, whose end is on the girdle upper ridge, among sides of the crown main facets and a vertex on the girdle upper ridge (Figs. 1A). The pavilion has a bottom apex (13) at a lower end of the central axis and eight pavilion main facets

(17) and sixteen lower girdle facets (18) on the diamond perimeter between the bottom apex and the girdle lower ridge (Fig. 1C). Each of the pavilion main facets is a tetragon or a part of a tetragon extending from the bottom apex toward a crossing point of each of the eight-dividing planes with the girdle lower ridge on the diamond perimeter between the bottom apex and the girdle lower ridge, and having a side, whose end coincides with the bottom apex, jointly owned with each of two other pavilion main facets neighboring on the pavilion main facet (Fig. 1C). Each of at least seven pavilion main facets among the pavilion main facets is formed with opposite vertexes composed of a crossing point of each of the eight-dividing planes with the girdle and the bottom apex (Fig. 1B and 1C). Each of the lower girdle facets formed between the pavilion main facets and the girdle lower ridge is a triangle or an oval sector having a bottom side coinciding with a side having an end on the girdle lower ridge among sides of each of the pavilion main facets and a vertex on the girdle lower ridge (Figs. 1B and 1C). Each of the lower girdle facets is disposed on each of both sides of each of the pavilion main facets (Figs. 1A and 1C). Each pair of four pairs of pavilion main facets, of which each pair is composed of two pavilion main facets positioned opposite to each other with respect to the central axis, has two crown main facets facing the two pavilion main facets through the girdle, and the two pavilion main facets, the two crown main facets and the table facet have a common plane vertical to all of them within them (Figs. 1B). The pavilion angle p to the table facet each of the pavilion main facets has and a crown angle to the table facet each of the crown main facets has are in a region surrounded by lines connecting points, “p, c”, on a graph drawn with pavilion angles ,p, in a vertical line and crown angles, c, in a horizontal line. The graph serves to show a region of the pavilion angle p and the crown angle c that enhances the amount of effective visual-perceptible

reflection rays (Paragraph 0074 and 0158). Therefore, it would have been obvious to one having ordinary skill in the art at time the invention was made to have the pavilion angle p to the table facet each of the pavilion main facets has and a crown angle to the table facet each of the crown main facets has are in a region surrounded by lines connecting points, "p, c", on a graph drawn with pavilion angles ,p, in a vertical line and crown angles, c, in a horizontal line as taught by Kawabuchi et al. in the diamond disclosed by Itzkowitz and modified by Kedem et al. Doing so, serves to show a region of the pavilion angle p and the crown angle c that enhances the amount of effective visual-perceptible reflection rays. With respect to the specific angle that are being claimed, it would have been obvious to one having ordinary skill in the art at the time the invention was made to have the points "p, c": (43 degrees, 10 degrees), (41 degrees, 14 degrees), (37 degrees, 23 degrees), (35 degrees, 33 degrees), (35 degrees, 36 degrees), (37 degrees, 42 degrees), (39 degrees, 42 degrees), (41 degrees, 36 degrees), (43 degrees, 24 degrees) and (44.7 degrees, 9 degrees) on the graph since it is extremely old, well known, readily apparent and profoundly obvious to change the size, shape, orientation, **angles**, percentages, and create ranges for facets and the gemstone in its entirely as to merely alter the aesthetics of said gemstone for the corresponding and resulting properties including brilliance, radiance, etc. for the utility of mere user preference. It is also extremely well known that altering said features will produce different properties radiating from said gemstone, depending on the changes and alterations made. Therein, once again, lies the pertinence behind such, as no unexpected result, viewed by one skilled in the art; will occur, with any of the above possible changes or alterations to any given gemstone.

Response to Arguments

[6] Applicant's amendments and arguments filed 5/14/2009 regarding rejections under 35 U.S.C. 103 have been fully considered but they are not persuasive. In the instant case, the current examiner of record maintains that the prior art as shown above teaches of the claimed limitations, and if it is held that they do not, either individually or in combination, the examiner, further maintains that it would have been obvious to one having ordinary skill in the art at the time of applicant's invention to have made or have modified the structure of the claimed gemstone since it is extremely old, well known, readily apparent and profoundly obvious to change the size, shape, orientation, angles, percentages, planes, and create ranges for facets and the gemstone in its entirely as to merely alter the aesthetics of said gemstone for the corresponding and resulting properties including brilliance, radiance, etc. for the utility of mere user preference. It is also extremely well known that altering said features will produce different properties radiating from said gemstone, depending on the changes and alterations made. Therein, once again, lies the pertinence behind such, as no unexpected result, viewed by one skilled in the art; will occur, with any of the above possible changes or alterations to any given gemstone.

Pursuant to KRS, the examiner would like to point out that KSR forecloses the argument that a specific teaching, suggestion, or motivation is required to support a finding of obviousness. Ex parte Smith, --USPQ2d--, slip op. at 20, (Bd. Pat. App. & Interf. June 25, 2007). In addition, it is not required that the prior art disclose or suggest the properties newly-discovered by an applicant in order for there to be a prima facie case of obviousness. *See In re Dillon, 919 F.2d 688, 16 USPQ2d 1897, 1905 (Fed. Cir. 1990)*. Moreover, as long as some motivation or

suggestion to combine the references is provided by the prior art taken as a whole, the law does not require that the references be combined for the reasons contemplated by the inventor. *See In re Beattie, 974 F.2d 1309, 24 USPQ2d 1040 (Fed. Cir. 1992); In re Kronig, 539 F.2d 1300, 190 USPQ 425 (CCPA 1976) and In re Wilder, 429 F.2d 447, 166 USPQ 545 (CCPA 1970)*. The test for obviousness is not whether the features of a secondary reference may be bodily incorporated into the structure of the primary reference; nor is it that the claimed invention must be expressly suggested in any one or all of the references. Rather, the test is what the combined teachings of the references would have suggested to those of ordinary skill in the art. *In re Keller, 642 F. 2d 413, 425, 208 USPQ 871, 881 (CCPA 1981)*. In this regard, a conclusion of obviousness may be based on common knowledge and common sense of the person of ordinary skill in the art without any specific hint or suggestion in a particular reference. *In re Bozek, 416 F .2d 1385, 1390, 163 USPQ 545, 549 (CCPA 1969)*.

The mere existence of differences between the prior art and an invention does not establish the invention's nonobviousness. The gap between the prior art and respondent's system is simply not so great as to render the system nonobvious to one reasonably skilled in the art. Dann Commission of PET V. Johnston 189 USPQ 257.

Moreover, when there is a design need or market pressure to solve a problem and there are a finite number of identified, predictable solutions (such as so many ways to cut a gemstone), a person of ordinary skill has good reason to pursue the known options within his or her technical grasp. If this leads to the anticipated success, it is likely the product not of innovation but of ordinary skill and common sense. Ultimately, the determining of obviousness does not require staying within the object of Itzkowitz or Kedem et al. "The question is not whether the

combination was obvious to the patentee but whether the combination was obvious to a person with ordinary skill in the *art." KSR Int'l. Co. v. Teleflex Inc.,* 127 S.Ct. 1727, 1742, 82 USPQ2d 1385, 1397 (2007). In making the obviousness determination one "can take account of the inferences and creative steps that a person of ordinary skill in the art would employ." *KSR,* 127 S.Ct. at 1741, 82 USPQ2d at 1396. "A person of ordinary skill is also a person of ordinary creativity, not an automaton." *KSR,* 127 S.Ct. at 1742. 82 USPO2d at 1397.

Conclusion

[7] **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

[8] Any inquiry concerning this communication or earlier communications from the examiner should be directed to David C. Reese whose telephone number is (571) 272-7082. The examiner can normally be reached on 7:30 am-6:00 pm Monday-Thursday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Victor Batson can be reached at (571) 272-6987. The fax number for the organization where this application or proceeding is assigned is the following: (571) 273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

David Reese

/D. C. R./
Examiner, Art Unit 3677

/Victor Batson/
Supervisory Patent Examiner, Art Unit 3677